Title: 14' High Fencing - Vinyl Coated Chain Link (Black)

SCOPE OF SERVICES:

East Lake Community Park – 24809 Wallick Rd., Sorrento, FL 32776

1.01 SCOPE OF SERVICES:

The contractor shall furnish all labor, equipment, materials, fuel and any other incidental costs, and supervision necessary for the installation and completion of a 14' high black vinyl coated chain link fence. All work and equipment shall be in strict compliance with the latest codes, standards and practices.

Work shall start no later than seven (7) days from the time notice to proceed is given to the contractor.

- The contractor shall obtain and pay for all permits, licenses and certificates and/or any required approvals of plans or specifications as may be required by local laws, ordinances, rules and regulations for the proper execution and completion of the work specified.
- During the progress of the work, the contractor shall keep the park free from accumulations of waste materials, and any other debris resulting from the work. At the completion of the work, the contractor shall remove all waste materials and the site shall be restored to good condition.
- Tie-wire, #6 W & M gauge aluminum ties @ 15" o.c. for rails. Ties to be 12" apart on posts. End of ties should be wound in a telegraph trust, 2 ½ turns. Fence – 2" diamond mesh as manufactured by Master Halco/Anchor (800)229-5615, or approved equal. NOTE: Color to be vinyl coated black wire mesh and ties to be 6 gauge.
- The Contractor's installation, when completed, shall match existing 14' vinyl coated (Black) chain link fence.

1.02 GENERAQL REQUIREMENTS:

- Contractor is to maintain all existing project perimeter fencing designated to remain.
- Investigate and verify all dimensions. Arrange the work and furnish materials to suit field dimensions.
- Approval of shop drawings required prior to fabrication.
- Proposals will be accepted only form those regularly engaged, for the past five years, in manufacture and installation of chain link fence as specified herein.
- Contractor to supply any and all materials needed to provide a complete and finished product.

1.03 LOCATION: All fencing to be installed is shown on plan. See drawing for location, extent of work and other requirements.

1.04 SUBMITTALS:

- Changes in specification may not be made after the bid date unless written approval is obtained from the Owner's Representative.
- Shop Drawings: Layout of fences with dimensions, details, and finishes of components, accessories and post foundations.
- Product Data: Manufacturer's catalogs cuts indicating material compliance and specified options.
- Samples: Submit color selections and samples of materials (eg. Wires and mesh)

PART 2 – PRODUCTS

2.01 MANUFACTURER

- Products from qualified manufactures or approved equal having a minimum of five years experience manufacturing thermally fused chain link fencing will be acceptable by Owner's Representative as equal, approved in writing prior to bidding, and if they meet the following specifications for design, size gauge of metal parts and fabrication.
- Obtain chain link fences, including accessories, fitting, and fastenings from a single source.

2.02 CHAIN LINK FECE FABRIC

- PVC/Vinyl coating thermally fused to metallic coated steel core wire: ASTM 668 Class 2b, 7 mil (0.17) thickness. Core wire tensile strength 75,000 psi (517 MPa) Black color.
- Size: Helically wound and woven to height as indicated on drawings and details.
- Fabric: Woven to height as indicated on drawings with 2" (50 mm) diamond mesh of 6 gauge core wire with a diameter of 0.192' (4.88 mm) and a breakload of 2170 lbs. (9650 N) Color black ASTM 934
- Selvage of fabric knuckled at top and knuckled at bottom.

2.03 STEEL FENCE FRAMING:

- Steel Pipe – Type I: ASTM F 1083, standard weight schedule 40; minimum yield strength of 25,000 psi (170 MPa); sizes as indicated. Hot-dipped galvanized with minimum average 1.8 oz/ft. sq. (550 g/m sq.) of coated surface area.
- PVC/Vinyl coated finish: In accordance with ASTM F1043, apply supplemental color coating of 10 – 15 mils (2.54 – 0.38 mm) of thermally fused PVC/Vinyl color in black color.
- All fencing posts and rails per construction details or manufacture's written recommendations whichever is more stringent.
- See attached details A, B, C and D for additional information.

2.04 VINYL COATED ACCESSORIES:

A. Chain Link Fence Accessories: ASTM F 626, Provide items required to complete fence system. Galvanize each ferrous metal item in accordance with ASTM A 153 and finished to match framing.

B. Post Caps: Formed steel, cast malleable iron, or aluminum alloy weather tight closure cap for tubular posts. Provide one cap for each post (Where top rail is used, provide tops to permit passage of top rail.)

C. Top Rail and Brace Ends: Pressed steel per ASTM F626, for connection of rail and brace to posts.

D. Top Rail Sleeves: 7" (178 mm) expansion sleeve with spring, allowing for expansion and contraction of top rail.

E. Wire Ties and Clips: 6 gauge [0.135" (3.43 mm)] galvanized steel wire for attachment of fabric to line posts. Double wrap 13 gauge [0.092" (2.324 mm)] for rails and braces. Hog ring ties of 12-1/2 gauge [0.0985" (2.502 mm)] for attachment of fabric to tension wire.

F. Brace and Tension (stretcher bar) Bands: Pressed steel

G. Tension (stretcher) Bars: One piece lengths equal to 2" (50mm) less than full height of fabric with a minimum cross-section of 3/16" x ¾" (4.76 mm x 19 mm) or equivalent fiberglass rod. Provide tension (stretcher) bars where chain link fabric meets terminal post.

H. Nuts and bolts are galvanized but not vinyl coated. Prime and paint all nuts and bolts black to match vinyl coating using paint system compatible with galvanized finish (submit product data).

I. Fence Tension Wire: Thermally fused vinyl (Permafused) applied to metallic coated steel wire, 7 gauge, [0.177" (4.5 mm)] diameter core wire with tensile strength of 75,000 psi (517 Mpa).

J. Fence Truss Rods & Tightener: Steel rods with minimum diameter of 5/16" (7.9 mm). Capable of withstanding a tension of minimum 2,000 lbs.

2.05 SETTING MATERIALS

A. Concrete: Minimum 28 days compressive strength of 3,000 psi (20 Map)

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify areas to receive fencing are completed to final grades and elevations.

B. Ensure property lines and legal boundaries of work are clearly established.

3.02 CHAIN LINK FENCE FRAMING INSTALLATION

A. Install chain link fence in accordance with ASTM 567 and manufacturer's instructions.

B. Concrete set all posts: Drill holes in firm, undisturbed or compacted soil. Holes should have a diameter 4 times greater than the outside of post, and depths approximately 6" (150 mm) deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soil, and for posts with heavy lateral loads. Set post bottom 36" (900 mm) below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water away from posts.

C. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.

D. Rail: Install single lengths between posts.

3.03 CHAIN LINK FABRIC INSTALLATION

A. Fabric: Install fabric on field side, and attach so that fabric remains in tension after pulling force is released. Leave approximately 1" (25 mm) between finish grade and bottom selvage. Attach fabric with wire ties or clips line posts at 15" (380 mm) on center and to rails, braces and tension wire at 24" (600 mm) on center.

B. Tension (stretcher) Bar: Pull fabric taut; thread tension bars through fabric and attach to terminal posts with bands spaced max of 15" (380 mm) on center.

3.04 ACCESSORIES

A. Tire Wires: Bend ends of wire to minimize hazard to persons and clothing.

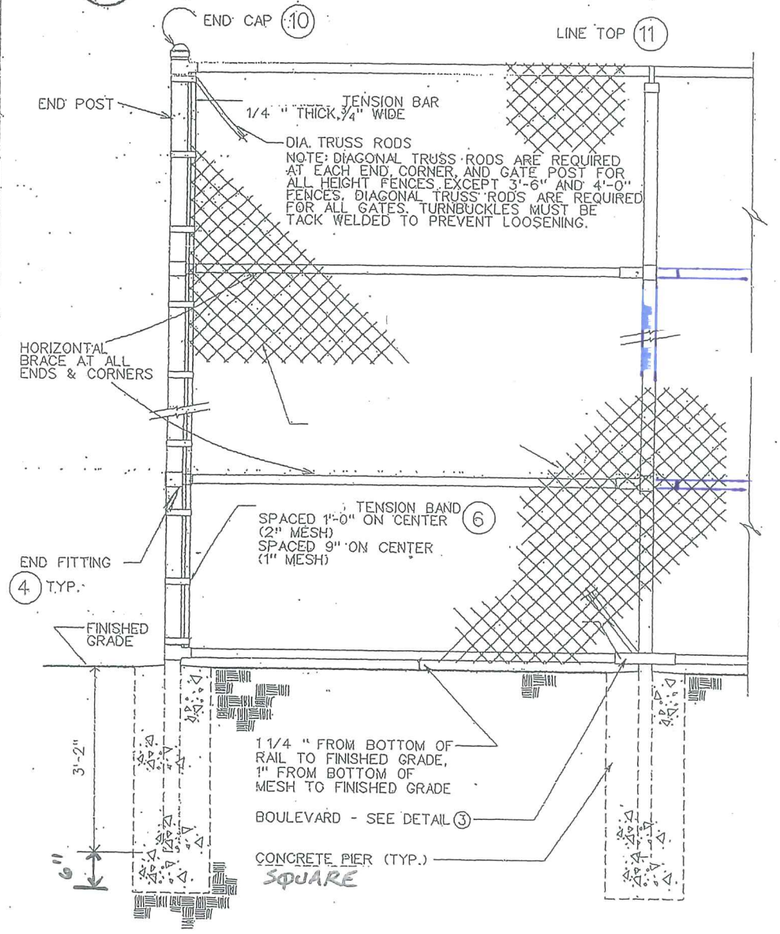
B. Fasteners: Install nuts on side of fence opposite fabric side for added security.

3.05 CLEANING

A. Clean up debris and unused material, and remove from the site.

1 14'-0" HIGH CHAIN LINK FENCE*

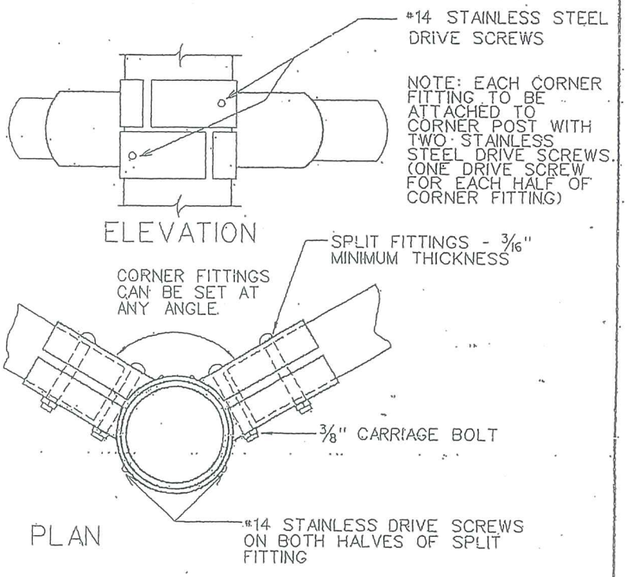
SCALE: 1"=1'-0"



* FOR OTHER HEIGHT FENCES, SEE SCHEDULE BELOW

2 CORNER FITTING

SCALE: HALF SCALE



DETAIL "A"

FABRIC WIDTHS

HEIGHT OF FENCE	WIDTH OF BOTTOM FABRIC	WIDTH OF TOP FABRIC
3'-6" - 4'-0"	3'-6" - 4'-0"	0
6'-0"	6'-0"	0
8'-0"	8'-0"	0
10'-0"	10'-0"	0
12'-0"	8'-0"	4'-0"
14'-0"	10'-0"	4'-0"
16'-0"	10'-0"	6'-0"
18'-0"	10'-0"	8'-0"
20'-0"	10'-0"	10'-0"

PIPE SCHEDULE

NOMINAL OUTSIDE DIAMETER	ACTUAL OUTSIDE DIAMETER
1⅝"	1.660
2"	2.375
2½"	2.875
3"	3.500
3½"	4.000
4"	4.500
4½"	5.000

BOLT AND FABRIC NOTES

PEEN END OF ALL BOLTS.

BOLTS WHICH ARE INSTALLED 6' OR LESS ABOVE GRADE SHALL NOT PROTUDE MORE THAN 1/4" BEYOND THE NUT AFTER TIGHTENING. ALL ROUGH EDGES SHALL BE FILED SMOOTH TO THE SATISFACTION OF THE ENGINEER.

ON FENCES OVER 12 FEET HIGH WHERE THE TWO WIDTHS OF FABRIC ARE REQUIRED, THE BOTTOM PIECE SHALL BE KNUCKLED TOP AND BOTTOM AND THE TOP PIECE KNUCKLED AT BOTTOM AND BARBED AT TOP.

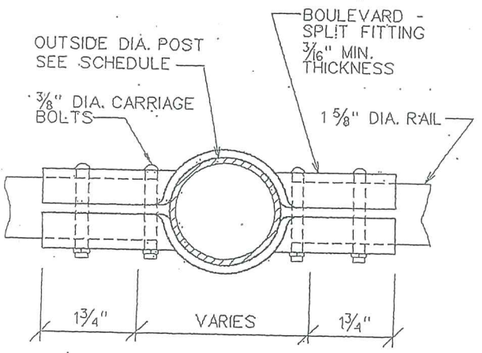
THE TWO PIECES SHALL BE SPLICED IN SUCH A WAY AS TO GIVE A FINISHED NEAT APPEARANCE.

FABRIC TO BE KNUCKLED AT TOP AND BOTTOM RAILS ON FENCES UP TO AND INCLUDING 6'-0" HIGH AND BARBED AT TOP RAIL ON FENCES OVER 6'-0" HIGH.

HEIGHT OF FENCE	DIAMETER OF LINE POSTS	POST SPACING MAXIMUM	CORNER & END POST	TOP RAIL	MID RAILS	BOTTOM RAIL	DEPTH OF POST INTO CURB AND FTG AT:		HORIZONTAL BRACES AT CORNER & END POST	DIAGONAL BRACES
							LINE POST	END/CORNER/ GATE POST		
3'-6" & 4'-0"	2"	6'-0"	2½"	1⅝"	0	1⅝"	1'-0"	1'-0"	0	0
6'-0"	2"	6'-0"	2½"	1⅝"	0	1⅝"	1'-8"	1'-8"	0	½" DIA.
8'-0"	2½"	8'-0"	3"	1⅝"	0	1⅝"	1'-8"	1'-8"	1 AT 1⅝"	½" DIA.
10'-0"	3"	10'-0"	4"	1⅝"	1 - 1⅝"	1⅝"	3'-2"	3'-2"	2 AT 1⅝"	½" DIA.
12'-0"	3"	10'-0"	4"	1⅝"	1 - 1⅝"	1⅝"	3'-2"	4'-2"	2 AT 1⅝"	½" DIA.
14'-0"	3½"	10'-0"	4"	1⅝"	2 - 1⅝"	1⅝"	3'-2"	4'-2"	2 AT 1⅝"	½" DIA.
16'-0"	3½"	10'-0"	4"	1⅝"	2 - 1⅝"	1⅝"	3'-2"	4'-2"	2 AT 1⅝"	½" DIA.
18'-0"	3½"	10'-0"	4"	1⅝"	2 - 1⅝"	1⅝"	3'-2"	4'-2"	2 AT 1⅝"	½" DIA.
20'-0"	4½"	10'-0"	4½"	1⅝"	3 - 1⅝"	1⅝"	4'-2"	4'-6"	3 AT 1⅝"	½" DIA.

DETAIL "B"

3 BOULEVARD
SCALE: HALF SCALE



PLAN

ALL CORNERS TO BE ROUNDED

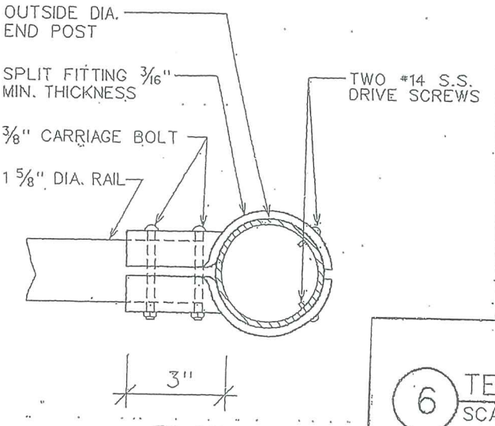
NOTE:

A=1 3/4" FOR 2" - 4 1/2" O.D. POST

B=1 5/8" FOR 2" O.D. OR SMALLER POST

C=2 1/2" NOM. O.D. OR LARGER - 2 BOLTS REQUIRED

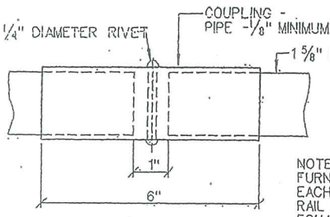
4 END FITTING
SCALE: HALF SCALE



PLAN

NOTE: MINIMUM WIDTH OF END FITTING TO BE 2 1/4"

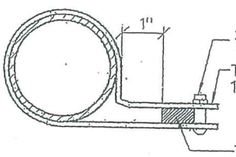
5 TOP RAIL COUPLING
SCALE: HALF SCALE



ELEVATION

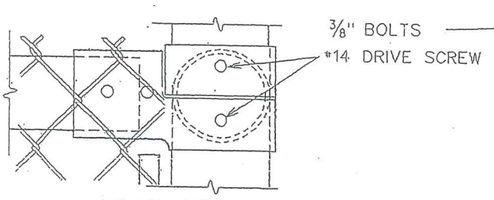
NOTE:
FURNISH ONE COUPLING FO
EACH LENGTH OF PIPE IN T
RAIL - FULL LENGTH OF PI
EQUALS 21'-0"

6 TENSION MEMBERS
SCALE: HALF SCALE

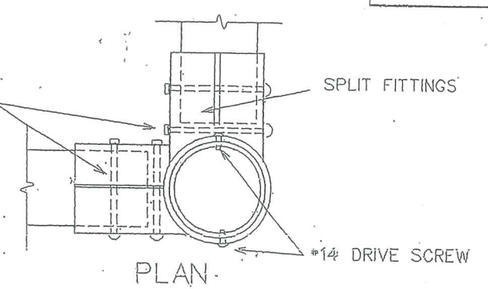


PLAN

7 CORNER SPLIT FITTING
SCALE: 3"=1'-0"



ELEVATION



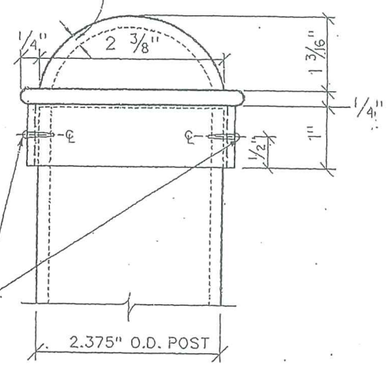
PLAN

DETAIL "C"

8 SMALL POST CAP

SCALE: FULL SCALE

WALL THICKNESS 3/16" THROUGHOUT



NOTE: POST CAP IS TO BE OF MALLEABLE IRON OR PRESSED STEEL.

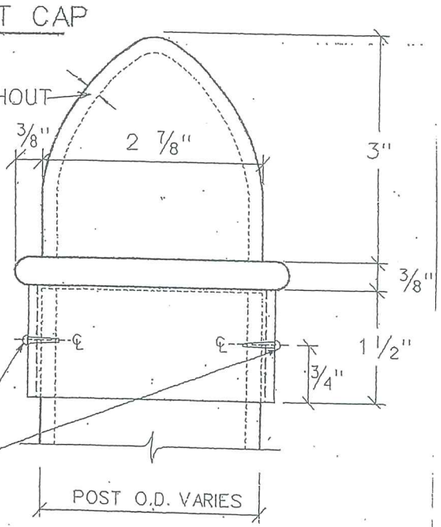
CAP TOP FOR 3'-6" AND 4'-0" HIGH FENCE TO BE A SMOOTH "DOME" SHAPE. FOR 6'-0" HIGH FENCES, POST CAPS CAN BE "DOME" OR "BULLET" SHAPED.

POST CAP IS TO FIT SNUGLY OVER POST AND IS TO BE FIXED IN PLACE WITH TWO # 14 STAINLESS STEEL DRIVE OR SET SCREWS.

9 END, CORNER, & GATE POST CAP

SCALE: FULL SCALE

WALL THICKNESS 3/16" THROUGHOUT



NOTE: POST CAP IS TO BE OF MALLEABLE IRON.

FOR 4" OUTSIDE DIAMETER POST, POST CAP SHALL POSSESS DIMENSIONS THAT ARE IN PROPORTION TO DIMENSIONS BELOW FOR 2 1/8" OUTSIDE DIAMETER POST CAP.

CAP TOPS FOR 3" OUTSIDE DIA. AND 4" OUTSIDE DIA. POSTS ARE TO POSSESS A SMOOTH "BULLET" SHAPE FOR 2 1/2" OUTSIDE DIA. POST CAP - SEE DETAIL (9)

POST CAP IS TO FIT SNUGLY OVER POST AND IS TO BE FIXED IN PLACE WITH TWO # 14 STAINLESS STEEL DRIVE OR SET SCREWS.

10 POST LINE TOP

SCALE: FULL SCALE

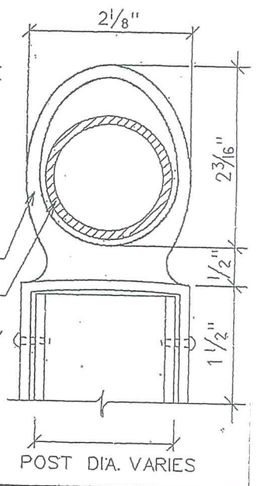
NOTE: WIDTH OF LINE TOP OVAL TO BE MINIMUM OF 5/8" AND A MAXIMUM OF 7/8". LINE TOP IS TO BE OF MALLEABLE IRON.

INSIDE OF LINE TOP OVAL IS TO BE ALIGNED WITH OUTSIDE 'WALL' OF LINE POST. CHAIN LINK MESH MUST BE STRAIGHT FROM LINE POST TO TOP RAIL.

WALL THICKNESS TO BE 3/16" THROUGHOUT

1 5/8" DIA. TOP RAIL

POST CAP IS TO FIT SNUGLY OVER POST AND IS TO BE FIXED IN PLACE WITH TWO # 14 STAINLESS STEEL DRIVE OR SET SCREWS.



DETAIL "D"

5/8" LB2108"

←14' Vinyl Coated (Black) Chain Link Fence
6 gauge

300 +/-

114,917 SF
2.64 Ac.

WALLICK RD

SE CORNER
SEC. 19,

EAST LAKE PARK

LAKE COUNTY, FLORIDA

SCALE - N.T.S.
01/17/11

BELLOMO HERBERT AND COMPANY INC
LANDSCAPE ARCHITECTS